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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,243	03/30/2004	Eric T. King	026-0037	4835

22120 7590 12/11/2007
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EXAMINER

BOCURE, TESFALDET

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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12/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/813,243

Applicant(s)

KING ET AL.

Examiner

Tesfaldet Bocure

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-48 is/are allowed.
- 6) ☒ Claim(s) 49-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-55 are pending in the application.

Specification

2. The disclosure is objected to because of the following informalities:

In page 2, line 2, "time 130" should be amended to read ---time 135---;

In page 8, paragraph [10036], "Fig 1" should be amended to read as ---Fig. 5---;

In page 15, paragraph [1056], "an" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 49,50,52 and 54-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Sorensen (US patent number 4,464,771).

Sorensen teaches a phase lock loop circuit (fig. 2) comprising a transition detector (2) for detecting the transition of the received signal having a clock information embedded with comprising: a counter for counting the number of transitions so that to increase or decrease the phase/frequency of the oscillator (5) depending on the phase or frequency error (see fig. 3 and corresponding text in the patent) of the oscillator

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phase/frequency compared to that of the received clock signal; wherein if the counted value shows to have no transition (claimed when the transition compared is less than the threshold in claims 49, 52 and 52, see abstract and col. 1, lines 64 through col. Line 34) inhibiting the oscillator as in claims 49, 50, 52 and 54. see gate 15 in figure 3 for inhibiting the oscillator if there is no transition counted.

The phase lock loop having a phase detector for detecting and correcting the phase and frequency error by comparing the received clock to that of the oscillator as in claim 55.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 51 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen (US patent number 4,464,771) in view of Applicant's Own Admitted Prior Art, AOAPA hereinafter (figures 1-3).

7. Sorensen teaches the claimed subject matter in claims 49 and 52 in which claims 52 and 53 respectively depends on as indicated above.

Further Sorensen also teaches that the phase and frequency of the oscillator is increased or decreased based on the phase comparison between the received clock and that of the oscillator (see col. 1, line 63 through col. Col. 2, line 35), however fails

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to teach that there is a quadrant information associated with the received transitions as in claims 51 and 53.

AOAPA teaches a phase frequency correction circuit (see figure 3 and corresponding text in the current application) comprising for generating quadrant information (see fig. 20 corresponding to the detected transition (see fig.1) as in claims 52 and 53.

Therefore, it would have been obvious to one of an ordinary skill in the art to increase or decrease the phase or frequency error of the internally generated clock from the oscillator according the quadrant information of the received transition at the time the invention was made.

Allowable Subject Matter

8. Claims 1-48 are allowed.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent number 5,511,100 issued to Lundberg discloses a frequency detector having means for disabling the oscillator according the counted transition values.
10. US patent number 6,307,696 issued to Bishop disclose a phase locking circuit having means for adjusting the phase of the oscillator according to the quadrant information.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (571) 272-3015. The examiner can normally be reached on Mon-Thur (7:30a-5:00p) & Mon.-Fri (7:30a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

T.Bocure

Tesfaldet Bocure
Primary Examiner
Art Unit 2611

